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WHAT STUDIES SHOULD PREDOMINATE IN SECONDARY SCHOOLS?¹

"Resolved, That in every secondary school and in college as far as to the end of the sophomore year, the study of language and the study of mathematics should be predominantly and continuously pursued; that the study of English, including grammar, rhetoric, and composition, should continue throughout every course: that two languages besides English should be studied; and that no other studies should be allowed to interfere with the preëminence of the studies here designated."

When this resolution, weighty with the odor of resurrected graveclothes, first met my astonished gaze, I found no more fitting vesture for my thought than the language of the radical revolutionist, "I have but one lamp by which my feet are guided and that is the lamp of experience," and that experience, which in the retrospect brings no little remorse for my too uncompromising attitude toward all but the traditional subjects, teaches me by its bitter lessons, that the advocacy of the affirmative of this resolution would be such a crime against the youth of our country, is so antipodal to the present trend of secondary education, and so out of harmony with the varied germs of divine implanting, that I would expect to answer for it on the great day of assize.

When I contemplate what the passage of this resolution by the leading educators of the Northwest would mean; when I consider how oracular to the secondary schools and colleges about us should be the propaganda of this association; when I hear the trumpet pealing forth no uncertain sound from out the vanguard of the advancing hosts of New England and the Middle States, hosts, whose traditional conservatism has hitherto kept them in the rear; when I see boys turning their backs upon the schools,

¹ This article and the two following are preprinted from the Proceedings of the North Central Association of Colleges and Secondary Schools at the meeting held in Chicago, February 12, 13, 1897.

and girls fainting by the way because language and mathematics are made the be all and end all of fundamental culture, I feel like crying out again with the Virginia delegate of the house of burgesses — “Give me liberty in courses of instruction or give me death.”

We are living in no cloister period of human thought. Bars and bolts are found no longer upon the sources of human intelligence; we have emerged from the dullness and darkness of mediævalism, and it is futile to longer argue for the maintenance of its claims. When the history of higher education shall have been written, it will be found that not until after the middle of the century now closing was there acknowledged to be more than one path leading to the summit of the hill of learning, and those who became great, as the thinkers and leaders in the development and practical application of science, became so in spite of the universities, and because the Infinite Architect of mind and matter gave to these souls those talents, which, through self-activity, blossomed and bore fruitage for the world's need, while the great institutions of learning were still feeding all their students upon an unvarying diet, suited to some, but ill-adapted to many, and careless of the great revolutions that were going on in the domain of nature, by which its powers were being adapted by the few to the world's rapid enlightenment and advancement.

I am not so blind to the varying capacities of our young people; I am not so deaf to their cries for food suited to their digestive organs; I am not so out of touch with my environments as an humble educator in this great city, as not to see and hear and feel the pathos and potency of the great evolution that is going on in our educational theory, that shall make the development of the individual, and not of the mass, the shibboleth of our institutions of learning as we cross the threshold of the twentieth century.

In the discussion of this question we cannot ignore the incontrovertible fact that the secondary school, especially the public high school, is established and maintained under the fostering care of the public, for the one grand purpose of giving to pupils

of from 14 to 18 years of age the very best equipment for life which their capacity in those years of development will permit, without special regard to that higher education which the colleges and universities furnish to the few who may be influenced to strive for this larger legacy. In these schools, drawing, as an element of mind training and art culture, vocal music, of much worth to far the larger number, and physical culture, by no means of little moment, if scientifically taught, must have a place.

Let us be practical. The school day is generally from 9 A. M. to 2 P. M., with one-half hour of respite at noon. These four and a half hours may be wisely divided into five periods, of fifty-two minutes each,— leaving ten minutes for change of classes. Let us give the pupil at least the moiety of one period for study. Four periods remain. It is axiomatic, I think, that it is only through continuity of study that progress is made in any subject. Experience proves that it is almost worse than useless for a pupil to carry five or six or more studies at one time, giving thought to each but two or three times a week. This was the fateful error in the report of the Committee of Ten. By this classification pupils will have four periods a day, five or at least four times a week, and will be able, if they are in good physical condition, of average intelligence, and are under the direction of wise teachers, of whom there are but few, to carry four studies.

This resolution demands that two languages beside the English, with mathematics added (four altogether), shall be predominantly and continuously pursued, in every secondary school and in college to the end of the sophomore year, and that "*no other studies shall be allowed to interfere with the preëminence of the studies thus designated.*"

This is the very climax of scholastic sectarianism. It is the baldest and boldest claim of the decade for a narrow, one-sided fetish education. It will take more than the faith once delivered to the saints to enforce this doctrine, either east of the Alleghenies, in the Mississippi valley, or across the Rockies. The spell of such witchcraft is broken. We are living in an era

of unshackled thought, of man's immortal personality, an era that no longer compels genuflexions at the altars of the ancient, simply as ancient, but one that inspires man, as an individual, to learn the use of the weapons that God has placed in the particular arsenal of his brain, and to keep them burnished and sharpened for his engagement in the conflict of life. Only that knowledge that can be assimilated and appropriated becomes real education. The discipline alone, the simple unfolding of the mental faculties is not all of education, but in the process of that unfolding the mind should garner the largest possible amount of potential useful knowledge. The lines of demarkation between those studies once lauded as disciplinary, and those scoffed at as informational, are obliterated. All informational studies are now disciplinary if properly pursued, and all disciplinary studies are informational if rightly appreciated. It was said long ago that "education is power," and power can come only through the growth and training of those talents of God's endowment; no process of man's inoculation can educate what does not exist, and it is high time that we should recognize in all our schools the inequalities of natural endowments, and adapt our instruction to the capacities of the individual child. We differentiate too late rather than too early; we crush when we ought to uplift; we discourage when we ought to inspire.

Two languages beside English, and mathematics added, the predominant, preëminent, and continuous studies in all our secondary schools! What of history, of civics, of economics? What of science, the most important, and I may say with some fear of contradiction, perhaps, the most disciplinary of all studies? Is it possible that with malice prepense, the authors of this resolution would taboo the natural and physical sciences, as too informational and not sufficiently disciplinary? Let me say with all due humility, that whoever attempts to fasten these traditional subjects upon all our secondary schools to the extent that "no others shall be allowed to interfere with their preëminence" will meet with ignominious failure.

Therefore, Mr. President, with all becoming respect for the

larger wisdom and wider experience of those who have promulgated this resolution, I beg leave to offer a substitute, and a few words in support of it, leaving my colleagues to a full expression of their own opinions, and the association to adopt that which they believe will best answer the true ends of education.

SUBSTITUTE FOR RESOLUTION FOUR.

Resolved, That in both secondary schools and colleges, such courses of study should be provided, as will offer to every student, the best advantages, within reasonable limits, for the highest development of those talents with which he has been endowed, and that to this end studies should be arranged under the following heads, viz: (1) language; (2) mathematics; (3) natural and physical science; (4) history and literature; (5) civics and economics; and further that while students should, in general, be encouraged to maintain a reasonable balance between these, the courses should be so plastic, as to permit alternative options, with a view to their adaptation to the individual capacities and purposes of students.

No one can excel me in his appreciation of the results of language study. I believe it to be fundamental to the broad culture of most students. No better instruction probably has ever been devised for the highest production of mind power, than the study of language, I may say ancient languages, and yet my experience of thirty years has taught me, that to compel all students to pursue them for any extended time leads to a discouragement that causes many to forego a good education which they might otherwise secure. Those mental gymnastics denominated mathematics are invaluable. It is an exact science, and its study by those capable of comprehending the close analysis demanded, marvelously develops the power of reasoning and acute discrimination, but shall all pupils who seem to be born without the mathematical faculty, and yet are bright in language, thirst for history and delight in science, be deprived of their share of the inheritance of all the ages?

I am in accord with what I conceive to be the motive of that

part of the resolution relating to English, yet I am far from being persuaded that good grammarians and good rhetoricians are made through the study of English *per se*.

The influence of another language to accompany the English is invaluable and everywhere recognized. In the acquisition of a good vocabulary, in the cultivation of the habit to appreciate nice distinctions in the use of words, and in the mastery of choice expression, the study of Latin is a larger factor than that of English. In the teaching of English in our secondary schools we are aping the colleges, instead of preparing pupils for them. So long as pupils enter our high schools without knowing a noun from a verb, and when no more than 25 per cent. of them can spell correctly ten words selected from the first reader of the six-year-old child, so long will it be useless for our high schools to browse in the fields of Chaucer and Addison and Bacon and Carlyle. We must abridge and then enrich the work of the common schools. We must get down to first principles, lay foundations, and let the colleges erect the superstructure. English must be taught in all classes, at all times, under all circumstances. It is just as important that the teacher of physics, of geometry, of history, be held responsible for the correct expression of his pupils as the chair of English itself.

I do not think that "grammar, rhetoric, and composition" as texts should be studied "throughout every course," but I do think there is need for us all to study English, until we tune our harps on the golden shores, and speak with other tongues.

The natural and physical sciences are claiming and of right ought to claim a larger and larger place in every curriculum of study, primary, secondary, higher. The history of education for the last twenty-five years could not be written, without a very long chapter on the irrepressible conflict between the classicists and the scientists for which there has been no good educational excuse, and which has resulted in many specific technological institutions, which ought to have been departments of our great universities. The sciences have fought their way to recognition inch by inch, on all sides opposed, traduced, abused, as mere

informational, fact dispensing, bread-winning subjects, and yet in every pitched battle they have won, because nature and its God were on their side, not on the side of the largest battalions, but of eternal truth, for the greatest study of mankind is nature—God's architecture.

And yet there are many that are not particularly profited by the study of science. It has no special attraction for them and therefore imparts to them no real growth. Such ought to graze in other pastures.

This brings me to the real essence of what I wish to say and to the central thought of the substitute I present. All secondary courses of study, all requirements for admission to college, and all courses in college should be eminently elastic, and abound in such substitutions that every pupil may find those studies whose proper pursuit will guarantee to him that intellectual grasp and and growth, which the Infinite Architect of his latent mental aptitudes intended him to secure.

Contend as you may, argue as you will, this is to be the keynote of the educational progress of the next quarter of a century. It may be a period of empiricism rather than of rationalism, but the people have decreed that this is the music the secondary schools are to march by, and the colleges will covet concord.

President Eliot, of Harvard, who has perhaps earned the title of leader in the great educational movement of the last decade, looking toward a larger choice in subjects, and more ample substitutions said:

"We need to have the admission examinations at the higher institutions of learning leveled up, while wide options as to subjects are permitted, so that pupils of different capacities may not be obstructed in their progress, and secondary schools of different tendencies may retain their freedom. What fundamental principle is clearly involved in this recommendation? It is the recognition that English, the modern languages, history, and the sciences can be made in secondary schools the vehicle of just as substantial a training for the human mind, as Latin,

Greek, and mathematics. Towards that recognition immense progress has been made within my recollection, and great progress has also been made in developing successful methods of teaching the new subjects, methods which make them as valuable training material as the traditional subjects. When we have recognized the equal value of these subjects, new and old, and have learned how to teach them all with equal efficiency, we shall find that there are too many subjects for any one youth of eighteen to compass. We must therefore have options, and wide options, in admission requirements."

President Schurman, of Cornell, in defending the departure of that institution from the traditional moorings, by the abolishment of all degrees save that of A. B. says, in reply to the anticipated criticism that this action destroys the conception of liberal culture: "Far from destroying the conception, it enlarges and revivifies it and brings it into living relation with all the intellectual and æsthetic elements of our modern complex civilization." Again he says: "The two principles which influenced Cornell to take this action were, first, the adaptation of studies to the *needs* of students, and secondly, the recognition of the natural sciences, and of modern languages and literature, and other liberal arts on equal terms with the ancient classical languages as fitted to yield discipline, culture, and education to the minds of students."

Germany, the very Nestor of the ancient classics, is passing through an educational awakening, which is destined to result in radical changes in her gymnasia, by which modern subjects will be advanced to a position beside the ancient.

The whole educational world is astir on this subject of educational values, and the consequent claims of wider options that all pupils "may run and not be weary, may walk and not faint." This stone of eclecticism in courses of study, hitherto rejected, seems destined to become the head of the corner,—and wisdom, not policy, right, not expediency, necessity, not sentiment, bid us to accept the logic of the situation. It is a part of the evolution of education, manifesting itself in the successful establish-

ment, the rapid multiplication and the remarkable popularity of the public high schools, which, keeping close to the people, and providing means for the development of the individual, are destined to become the people's colleges to the extent of furnishing opportunities for the universities to do their legitimate work, of furnishing enlarged facilities for individual research and investigation.

If Latin and Greek are to retain their share of rightfully constituted authority in courses of study and remain invaluable aids in the development of English thought and expression, it will not be accomplished through contention and in accordance with the theory that "To the victors belong the spoils," but rather as the result of a spirit of good fellowship, manifesting itself in the universal recognition of the divine right of choice, between and among those studies which unfold the laws of nature, and tell the story of man, all of which, rightly pursued, under right conditions, will eminently insure the development of the human intellect, and the inculcation of a deeper reverence for the Creator of all natural phenomena and all human intelligences.

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